

U.S. Appl. No. 09/841,956
Amendment Dated Nov. 19, 2004
Reply to Office Action of Sept. 9, 2004
Docket No. 6169-187

IBM Docket No. BOC9-2000-0053

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the instant application:

Listing of Claims:

Claims 1 through 9 (Canceled)

10. (Original) An audio device, comprising:

a proximity detector generating proximity data based on a position of an audio speech source relative to said audio device;

at least one input transductive element, said input transductive element receiving sound and producing corresponding input audio signals;

an output element, said output element providing output audio signals from said audio device to said audio speech source;

audio circuitry, said audio circuitry converting said input audio signals from analog to digital format and converting said output audio signals from digital to analog format; and

a processor, said processor processing said input audio signals and said output audio signals using signal processing techniques based upon said proximity data.

11. (Original) The audio device of claim 10, wherein said output element is a speaker.

12. (Original) The audio device of claim 10, wherein said output element is a connection jack providing output audio signals to an output transductive element.

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13. (Original) The audio device of claim 10, said processor including a digital signal processor processing said input audio signals and said output audio signals.

14. (Original) The audio device of claim 10, said proximity detector comprising:
an infrared transmitter, said infrared transmitter transmitting infrared energy from said audio device; and
an infrared detector, said infrared detector detecting at least part of said infrared energy reflected off of said audio speech source.

Claims 15 through 23 (Canceled)

24. (New) The audio device of claim 10, wherein at least one of the signal processing techniques used by said processor distinguishes a desired portion of the input audio signals from background noise.

25. (New) The audio device of claim 10, wherein at least one of the signal processing techniques used by said processor adjusts audio output signal levels in accordance with said proximity data, wherein when the audio speech source is further away from the audio device than a predetermined distance, audio output signal levels are increased, and wherein when the audio speech source is closer to the audio device than a predetermined distance, audio output signal levels are decreased.

26. (New) The audio device of claim 10, wherein each of the signal processing techniques for adjusting input audio signals corresponds to an identified distance range, wherein the processor adjusts audio input signals using at least one signal processing with a corresponding identified distance range that includes a distance that the audio speech source is from the audio device as indicated by the proximity data.

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27. (New) The audio device of claim 10, wherein each of the signal processing techniques for adjusting output audio signals corresponds to an identified distance range, wherein the processor adjusts audio output signals using at least one signal processing with a corresponding identified distance range that includes a distance that the audio speech source is from the audio device as indicated by the proximity data.